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ABSTRACT

Research over the past 25 years indicates that children's persistent stereotyping of career roles influences their career choices. The following eight independent variables are examined so as to understand secondary school students' occupational sex-role stereotyping (OSRS): (1) gender; (2) socioeconomic status of the parents; (3) mother's employment outside the home; (4) parent's formal education; (5) family structure; (6) classification of the student; (7) size of school district; and (8) nationality. Scores from the Occupational Sex-Role Stereotyping Instrument supplied the dependent variable. The sample of 173 females and 151 males, representing grades 9 through 12, was from the Midwest. In addition to the OSRS Instrument, participants filled out a demographics questionnaire that addressed the eight independent variables. The following results were obtained: (1) females reported less OSRS than males; (2) white students reported less OSRS than their nonwhite counterparts; (3) no association existed between parents' socioeconomic status and OSRS; (4) OSRS was not affected by mothers working outside the home; (5) the parent's level of education did not influence OSRS; (6) there was no association between family structure and OSRS; (7) a student's classification did not affect his or her OSRS; and (8) no correlation was found between the size of the school and OSRS. (Contains 44 references.) (RJM)

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ED 370 040

OCCUPATIONAL SEX-ROLE STEREOTYPING IN SECONDARY STUDENTS

being

A Thesis Presented to the Graduate Faculty
of the Fort Hays State University in
Partial Fulfillment of the Requirements for
the Degree of Master of Science

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Graduate Committee Approval

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Table of Contents

	Page
Introduction	1
Overview	1
Sex-Role Stereotyping in School	3
Gender and Sex-Role Occupational Stereotyping	7
Grade Level, Age, and Sex-Role Occupational Stereotyping	11
Socioeconomic Status and Sex-Role Occupational Stereotyping	12
Maternal Employment and Sex-Role Occupational Stereotyping	13
Family Structure and Sex-Role Occupational Stereotyping	15
Formal Education of Parents and Sex-Role Occupational Stereotyping	16
Size of School District and Sex-Role Occupational Stereotyping	17
Nationality and Sex-Role Occupational Stereotyping	18
Summary	19
Statement of the Problem	20
Rationale and Importance of the Research	20
Composite Null Hypotheses	22
Definition of Variables	24
Independent Variables	24

Table of Contents (continued)

Page

Dependent Variable 25

Limitations 25

Methodology 26

Setting. 26

Subjects 26

Instrumentation. 27

Demographic Sheet. 27

[The] Occupational Sex-Role Sterotyping. 27

Design 28

Data Collecting Procedures 30

Research Procedure 32

Data Analysis. 32

Results 33

Discussion. 46

Summary. 46

Related Literature and Present Study 47

Generalizations. 48

Implications 49

Recommendations. 49

References. 51

List of Appendixes

Page

Appendix A: Demographic Sheet. 59

Appendix B: Occupational Sex-Role Stereotyping 61

Appendix C: Instruction Sheet. 63

Appendix D: Letters Requesting Permission. 65

Appendix E: Letters Granting Permission. 70

List of Tables

Page

Table 1: A Comparison of Mean Occupational Sex-Role Stereotyping Scores of Secondary School Students According to Gender, Socioeconomic Status of Parents, and Mother's Employment Status Employing a Three-Way Analysis of Variance. 35

Table 2: A Comparison of Mean Occupational Sex-Role Stereotyping Scores of Secondary School Students According to Gender, Socioeconomic Status of Parents, and Level of Parents' Education Employing a Three-Way Analysis of Variance. 37

Table 3: A Comparison of Mean Occupational Sex-Role Stereotyping Scores of Secondary School Students According To Gender, Mother's Employment Outside the Home, and Level of Parents' Education Employing a Three-Way Analysis of Variance. 39

Table 4: A Comparison of Mean Occupational Sex-Role Stereotyping Scores of Secondary School Students According to Socioeconomic Status of Parents, Mother's Employment Outside the Home, and Level of Parents' Education Employing a Three-Way Analysis of Variance. 41

List of Tables (continued)

Page

Table 5: A Comparison of Mean Occupational Sex-Role Stereotyping Scores of Secondary School Students According to Family Structure, Classification of the Student, and Size of School Enrollment Employing a Three-Way Analysis of Variance. 43

Table 6: A Comparison of Mean Occupational Sex-Role Stereotyping Scores of Secondary School Students According to Gender, Socioeconomic Status of Parents, and Nationality Employing a Three-Way Analysis of Variance. 45

Abstract

The purpose of the researcher was to investigate occupational sex-role stereotyping in secondary school students. The independent variables were: gender, socioeconomic status of the parents, mother's employment outside the home, parent's formal education, family structure, classification of the student, size of school district, and nationality. The dependent variable was scores from the Occupational Sex-Role Stereotyping instrument. The sample consisted of 324 secondary students, 173 females and 151 males. Six composite null hypotheses were tested at the .05 level of significance. Each composite null hypothesis was tested employing three-way analysis of variance (general linear model).

A total of 25 comparisons plus 17 recurring were made. Of the 25 comparisons, 8 were for main effects and 17 for interactions. Of the 8 main effects, 2 were statistically significant at the .05 level. The following main effects were statistically significant: gender and nationality. The results indicated the following for main effects:

1. females reported statistically less occupational sex-role stereotyping than males, and
2. students of white nationality reported statistically less occupational sex-role stereotyping than nonwhite students.

None of the 17 interations were statistically significant at the .05 level.

The results of the present study appeared to support the following generalizations:

(1) females reported less occupational sex-role stereotyping than males,

(2) white students reported less occupational sex-role stereotyping than nonwhite students,

(3) no association between socioeconomic status of parents and occupational sex-role stereotyping,

(4) no association between mother working outside the home and occupational sex-role stereotyping,

(5) no association between parents' level of education and occupational sex-role stereotyping,

(6) no association between family structure and occupational sex-role stereotyping,

(7) no association between classification of the student and occupational sex-role stereotyping, and

(8) no association between the size of school and occupational sex-role stereotyping.

Introduction

Overview

Socialization is the process by which an individual learns and internalizes society's expectations concerning what is appropriate behavior for his or her sex, age and current place in society (Lewis, Hayes, & Bradley, 1992). Sex-role standards can be defined as the sum of socially designated behaviors that differentiate between men and women (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972). Stereotypes often do not allow for individual differences and have limited information to support them.

The opportunity to become a fully developed human being is the goal of education. A basic belief of society is that all Americans should have equal opportunity to pursue interests, develop talents and grow to full potential. (Barnhart, 1983). Barnhart (1983) stated that as a part of this process of full development during their school years, youth are learning about, assessing, and reviewing possible occupational choices.

Williams and Best (1982) stated, "A sex stereotype is usually considered to be cognitive, it is a set of beliefs, it deals with what men and women are like, and it is shared by the members of a particular group" (p. 15). Because many people believe that gender characteristics are inherent in their nature rather than learned, they have difficulty

facing the possibility of changing gender roles (Good, Gilbert, & Scher, 1990).

Within the past two decades, attitudes towards and opportunities and expectations for American women have seen rapid changes. Society has seen more women enter the work force. It has seen women set and meet higher educational and professional goals and broaden their view of sex-appropriate occupations (Williams and Best, 1982). According to Betz (1994) most women will work outside the home and this work will play an increasingly important role in their lives. The extent of women's labor force participation is approaching that of men; however, the financial reward for their participation continues to differ greatly from that of men, keeping working women economically disadvantaged (Betz, 1994).

Williams and Best (1982) reported that there were many occupations, in every country, that were highly sex-typed.

> At the professional level in the United States, elementary school teachers and nurses are usually women and engineers and accountants are usually men; at a less skilled level, domestic workers are usually women and truck drivers are usually men; in the business area, most clerical workers are women and managers are men. (p. 293)

According to O'Reilly (1988, p. 4), "Women are still clustered in low-paying, low status, traditional jobs, such

as waitress, clerk, and secretary." Discrimination of women and minorities occur in the workplace and in educational settings (Gilbert, Hallett, & Eldridge, 1994). According to Gilbert et al. (1994, p. 147), this discrimination can include unfair practices in terms of selection, promotion, or compensation.

Sex-role stereotypes begins at birth or even before birth if the sex of the baby is known earlier. The choice of colors, play environment, and variety of toys all differ according to gender. Williams and Best (1982) reported that stereotyping can occur as early as age 3. Prior to age 7 or 8 children focused on "overt" qualities, such as appearance and possessions, but older children focused on "covert" qualities, such as dispositions, values and beliefs.

Sex-Role Stereotyping in School

Research results indicated that sexist attitudes in the culture have resulted in discriminatory practices toward girls in schools and colleges, which diminish their educational opportunities (American Association of University Women, 1992). Girls were being steered away from the math and science courses which are required for their productive participation in nontraditional careers. The American Association of University Women (1992) reported that the current education-reform movement cannot succeed if it continues to ignore half of its constituents. Society

must move girls from the sideline to the center of education planning.

Carmichael (1977, cited in Epler, 1982) stated that, "Sex stereotyping is a learned behavior" (p. 268). Sex-role stereotyping begins with assumptions about the differences between males and females which allow boys and girls to reach conclusions about themselves which are not true, and the acceptance of these assumptions allows them to be channeled into restrictive roles that limit their life choices (Carmichael, 1977, cited in Epler, 1982). Even though the law is very specific, (in fact, sex discrimination can be punished by loss of funds for a school district) educators have been very slow in helping tear down the barriers which exist for students who choose an educational program directed toward an occupational career which is not considered to be traditional for their sex (Epler, 1982).

Researchers have documented the pervasive gender-based inequities in American schools and showed that girls' self-esteem was directly related to how well they learn and succeed in school (American Association of University Women, 1992). Although self-esteem is frequently conceptualized as an independent variable affecting vocational behavior and adjustment, the effects of careers and career preparation on self-esteem are equally of interest (Stein, Newcomb, & Bentler, 1990).

Educators usually agree that the process of occupational selection should be as open and unrestricted as possible for students (Edwards, 1989). Federal legislation, for example, Title IX of the Educational Amendments of 1972, has been aimed at reducing "institutional barriers so that any worker might enter the job for which (s)he is qualified regardless of sex" (Thomas, Christie, Colvin, & Denbroeder, 1979, p. 10). Studies have shown that limiting factors, such as educational aspirations, socioeconomic status, and parental educational level among others, can impinge on the occupational decision of children. (Dunne, 1980; Dunne, Elliott, & Carlsen, 1981). While many changes have been made toward a more gender equitable society, attitudes have not changed easily, and occupational stereotyping has been found to also impinge upon the student's occupational decision-making process. Thomas et al. (1979) stated that "it remains a fact that many occupations are still widely considered as appropriate only for men, and others, only for women" (p. 10)

Many teachers bring sex-role stereotyping to the first class they teach. They have experienced females who teach at the elementary level and males who are principals and superintendents. Do teachers believe that one sex is better than the other? O'Reilly (1988) concluded that "teachers' 'perceptions of better' are divided: girls behave better but boys have better brains and bodies;

therefore, they are more valuable to society" (p. 4).

Most students make crucial decisions concerning life styles during their high school years, and the sex bias and sex stereotyping they are subjected to during these years can be detrimental to them (Lifschitz, 1983). Students are sensitive to the many ways in which a teacher communicates approval or disapproval.

The primary goal of education is to assist the change process and those who are involved in education must consider that part of the role of a teacher is to serve as a change agent (McCune and Mathews, 1978, cited by Hansen and Biernat, 1992). McCune and Mathews (1978, cited by Hansen and Biernat, 1992) indicated that even though sources of sex-stereotyping in the schools are the textbooks and instructional materials, the attitudes and actions of the teachers play a vital part in the students' development and self-image.

Career education is usually the formal approach to learning about occupations. Much learning about careers takes place via the incidental teaching/learning method. All who are involved in educating children need to be aware of how children view occupational roles (Barnhart, 1983).

The legislation has provided technical assistance to employers and unions to assist them in successfully receiving women in apprenticeships and nontraditional jobs. P.L. 102-530 proactively provides business and labor with

solutions to the problems that typically arise when women enter male-dominated occupations, minimizing harassment and discrimination. Government programs have not always done enough to help women get higher-paying jobs (Coleman, 1993). According to Coleman (1993), thousands of women trained each year under the Job Training Partnership Act (JTPA) and Job Opportunities and Basic Skill (JOBS) programs are usually directed into jobs that pay little more than the minimum wage.

With the financial assistance of the Ford Foundation and the passage of the Non-Traditional Employment for Women (NEW) Act of 1991, which requires all states to increase the number of women trained in nontraditional occupations, Wider Opportunites for Women (WOW) has emerged as a leading voice (Coleman, 1993). By their efforts WOW is providing the opportunity for women to break the barrier of nontraditional employment.

Gender and Sex-Role Occupational Stereotyping

Fulfillment of individual potential for achievement is vitally important. Walsh and Osipow (1994) stated "...that women should pursue meaningful careers that allow them to fully utilize their individual abilities and talents" (p 4). The first and most basic barrier to women's career development is societal stereotypes about both life and occupational roles (Walsh & Osipow, 1994).

So many women accept self-images that limit their alternatives and, therefore the expression of their potential as a person (Burlin, 1976). According to Burlin (1976) "Parental influence seemed to have the strongest, and most pervasive effect on the attitudes of adolescents. Students suggested that their parents did not support their innovative ideal aspiration but preferred that they follow a more socially acceptable traditional occupation" (p. 105).

Forisha (1978) stated the following:

> Within the framework of sex-role stereotypes man is regarded as the achiever - regardless of whether any particular man at any particular moment might rather not achieve. Within this same framework woman is regarded as the nurturer - regardless of whether at any given moment she might choose not to nurture (p. 147).

In the United States, sex stereotypes create a barrier whenever persons of one sex seek entry into an occupation that has traditionally been occupied primarily by members of the other sex (Forisha, 1978). The same dynamics may operate when women seek to enter fields such as law or management and when men seek to enter such fields as elementary education and nursing (Forisha, 1978). The greater awareness of and concern about the limiting effects of the sex stereotypes for women seems due to American women showing more interest in entering traditionally male occupations.

Men demonstrate less interest in entering traditionally female occupations, which may be partially due to the higher status and salaries awarded to the traditionally male occupations (Williams, Bennett, & Best, 1975). The human potential and sex equity movements have lead researchers to create the philosophy that supports the right of both sexes to pursue occupations on the basis of individual abilities, interests, values, and goals rather than on the basis of culturally established and socially maintained sex roles and stereotypes (Hayes, 1986). Hayes (1986) postulated that to truly lessen sexual segregation in the labor force, men will also need to cross over into occupations nontraditional for their sex. A man who enters a female-concentrated occupation is viewed as irrational for seeking a less valued, lower status, and lower paying "feminine" position (Hayes, 1986).

Hayes (1986) stated the following:

> Reasons men give for taking on "feminine" careers are summarized into four major categories. It gives them; (a) more freedom of options including the right to choose less stressful, less aggressive life-styles; (b) the ability to pursue personal abilities and self-fulfillment not available in many male sex-typed jobs; (c) increased stability and upward mobility, and (d) interaction with the opposite sex. (p. 95)

The negative impact of gender typing career opportunities for women has received extensive attention, but men also face limiting factors due to societal and personal barriers that discriminate against men's free vocational choice (Chusmir, 1990). Socially stereotyped gender appropriateness likely affects prejudice or ridicule against men in so-called "feminine" fields to a greater degree than against women who choose careers in "masculine" fields (Hayes, 1986). The ideal society is one in which occupational entry and success is based on the characteristics of the individual and not on gender (Lifschitz, 1983).

Hesse-Biber (1985, cited in Betz, 1994) reported that career aspirations of young women and girls continue to focus on stereotypically female occupations. The results of this study indicated that counselors may view and treat women in the same gender-stereotypic, limiting ways characteristic of society (Betz, 1994).

Self-efficacy expectations can be strengthened by facilitating performance accomplishments, providing exposure to female role models, assisting girls and women to manage anxiety with respect to nontraditional domains, and providing encouragement of girls' and women's efforts to develop skills and competencies (Betz, 1994). Role models can be scarce for children and adolescents with nontraditional career plans (Lewis et al., 1992).

Historically, women looked to men as role models and mentors because there were few women in careers. Male models and mentors were often limited in their effectiveness because of not being able to address the unique issues that women in professions face (Gilbert & Rossman, 1992).

Grade Level, Age, and Sex-Role Occupational Stereotyping

Awender and Wearne (1990) examined occupational perspectives and preferences of students ages 9-14. They reported that as the age of children increased the sex-occupational stereotypes decreased.

A longitudinal study by George and Schaer (1988) examined occupational preference of elementary female students over a 5 year period. The results of their study revealed that career choices of girls between the ages of 8 and 13 were affected by IQ, family background and parental views on sex-stereotyping. Parents of females choosing non-traditional jobs had more formal education. Although sex-role typing is relatively frequent in the occupational orientations of young children, it diminishes in the higher grade levels (Cummings & Taebel, 1980).

Teachers are more comfortable in dealing with girls and boys whose behaviors conform to the sex stereotypes. Thomas and Stewart (1978, cited by Williams & Best, 1982) found that high school counselors rated females who were interested in traditionally masculine occupations as needing

more counseling and advice than females who had more traditional occupational interests.

Socioeconomic Status and Sex-Role Occupational Stereotyping

Fadale (1974) found that children from the upper socioeconomic status reported more career awareness than those from the lower socioeconomic status. Children from the upper socioeconomic status revealed a broader knowledge of identification of workers, occupational prestige, and job advantages.

Awender and Wearne (1990) conducted a study to determine if there was a relationship between socioeconomic status and occupation choice of children. "Sex stereotype answers were given by the lowest socioeconomic group most often, followed by the highest socioeconomic group. The middle socioeconomic group of respondents demonstrated virtually no pattern of selecting traditional male and/or female occupations" (p. 8).

According to Brown (1970, cited in Betz, 1994) socioeconomic status is one of the most consistent predictors of occupational level achieved by males; higher family socioeconomic status is related to high achieved occupational levels in sons, whereas sons of lower class backgrounds achieve lower occupational levels. Sons are likely to "inherit" their fathers' occupational levels. In contrast parental socioeconomic status does not seem to be a

consistent predictor of women's career development (Betz, 1994).

Structural characteristics such as socioeconomic status of parents, demographic and family composition predict more of the variation in the sex role orientation of men than of women (Tomeh, 1979). For women, the processes through which attitudes emerge may be related to exposure to nontraditional standards and values rather than related to the effect of their structural characteristics while men are influenced by structural characteristics (Tomeh, 1979).

Maternal Employment and Sex-Role Occupational Stereotyping

Parents' level of education and maternal employment do predict daughters' career achievements (Betz, 1994). Research results indicated that more highly educated fathers tend to have more career-oriented and innovative daughters (Russo & O'Connell, 1980). According to Betz (1994) an even more powerful predictor of women's career development than father's educational level is maternal employment.

Research results have indicated that children's occupational aspirations are influenced by the sex-typicality of their parents' occupations, with the greatest effect coming from their same-sex parent (Reskin & Hartmann, 1986). According to Reskin and Hartmann, there is some indication that perceived parental power can affect occupational choices in children. Girls who perceive their father as the most powerful dominant parent are more likely

to prefer traditional female occupations. A preference for neutral or male-occupied jobs was noted in females who perceived their mothers as the dominant parent.

Children whose mothers were employed were less traditional in their sex-role attitudes (Bacon & Lerner, 1975). Results from research indicated that females whose mothers were employed outside of the home saw more male dominant vocations as being available to both sexes than did females whose mothers were not so employed and, similarly, that as grade level increased girls more frequently saw women as possible entrants into male dominant vocations (Bacon & Lerner, 1975; Tomeh, 1979).

Effects of mother's working outside the home are also noted by Tomeh (1979), who found that a mother's employment had a positive influence on her adolescent son's attitudes toward working women. Results of the study indicated that young women's attitudes toward female employment were more nontraditional if their mother worked. Gold and Andres (1978, cited by Gardner and LaBrecque, 1986) hypothesized that both sons and daughters of employed mothers would have broader, less differentiated conceptions of sex roles. Conclusions from research by Gardner and LaBrecque (1986) supported results from Gold and Andres. Gardner and LaBrecque stated that...

> daughters of employed mothers have a more liberal view of sex roles in the home and in society than daughters

> of homemaker mothers. However, daughters of homemaker mothers have more liberal views of sex roles in society and in the home than sons who have either homemaker or employed mothers. (p. 883)

According to Stewart (1976), there are at least three possible ways maternal employment might affect children's stereotypes.

> Working may raise the self-concept of the mother, thus making her a more confident role model for her daughter. A working mother may not be at home for long enough periods to "overprotect" a daughter, thus encouraging higher achievement. Finally, maternal employment does lead to a different division of labor within the home and to more shared decision making, so that neither parent is modeling a highly stereotyped role. (pp. 155-156)

It was reported that college sons and daughters of working mothers had androgynous sex role concepts (Broverman et al. 1972). Broverman et al. (1972) concluded that children of working mothers felt freer than their parents to engage in overlapping role behaviors and to achieve a greater degree of sex role equality in their own lives.

Family Structure and Sex-Role Occupational Stereotyping

Family structure influences can be important for the different role models they make available. Sex typing is affected by family structure. Researchers have noted the

effects of siblings in females' career choices (Edwards, 1989). Although there are no effects noted when the female subjects were ages 8 to 13 years, 5 years later when subjects were ages 13 to 18 years, there was a trend for those subjects choosing nontraditional careers to have fewer brothers than those subjects choosing traditional careers. No effect was seen for the number of sisters or for birth order (Sandberg, Ehrhardt, Mellins, Ince, & Meyer - Bahlburg, 1987).

Structural characteristics such as socioeconomic status of parents, demographic and family composition predict more of the variation in the sex role orientation of men than of women (Tomeh, 1979). For women, the processes through which attitudes emerge may be related to exposure to nontraditional standards and values rather than to the effect of their structural characteristics while men are influenced by structural characteristics (Tomeh, 1979).

Although there is little schools can do to change parental influences, schools can be agents of change for more openness in career choices in many areas. The researcher did not find any related literature pertaining to family structure and sex-occupational stereotyping in regard to biological parents being part of the family structure.

Formal Education of Parents and Sex-Role Occupational Stereotyping

Brogan and Kutner (1976) found that female undergraduates whose mothers had been employed during one or more of the subjects' school years were more nontraditional in sex role orientation than those whose mothers had not worked or who had worked less than one year. The difference was not statistically significant. However, a significant relationship between mothers' educational level and a more nontraditional sex role orientation was reported. The higher the educational level of mothers, the more nontraditional were the mothers' attitudes. These attitudes were transmitted to the daughters.

Maternal attitudes are often predictors of daughters's attitudes. College-educated mothers would be more in agreement with the attitudes of college-educated daughters. It was noted by Brogan & Kutner (1976) that women's educational attainment has a greater effect on "sex-role modernity" and favorable attitudes toward equality of opportunity for women than do any of the other demographic variables they investigated.

Size of School District and Sex-Role Occupational Stereotyping

Rural women perceive their appropriate roles in very traditional ways (Dunne, 1980). Some researchers suggest that one reason for the apparent discrepancy between educational attainment and occupational achievement is self-limitation in job choices. More recently researchers,

however, suggested that this selection of highly sex-stereotyped jobs tended to be less characteristic of young women than of young men, and that more young women than young men saw jobs which were stereotyped for the opposite sex as realistic choices for themselves (Dunne et al. 1981). Thus, it would appear that occupational orientations may be changing for young rural females. Data from the past decade indicated that rural female educational aspirations are higher than males (Dunne et al. 1981).

Nationality and Sex-Role Occupational Stereotyping

The integration of career counseling and multicultural counseling is in its infancy, but it is now widely accepted that there is a need for multicultural emphasis in the fields of psychology and counseling (Bingham & Ward, 1994). There is considerable evidence that White women and people of color encounter a "glass ceiling" in management (Morrison and Von Glinow, 1990). Morrison and Von Glinow (1990) described the "glass ceiling" in management as a barrier so subtle that it is transparent, yet so strong that it prevents women and minorities from moving up in the management hierarchy.

Discrimination occurs in part because White men maintain that women and people of color are less suited for management than White men (Morrison and VonGlinow, 1990). Bias is most effectively decreased not only by education, but also by exposure to and experience with members of the

opposite sex and other races (Powell, 1988, cited by Morrison & Von Glinow, 1990). Working alongside a woman or a minority group member may be the key to diminishing the discriminatory practices of White men.

By the year 2000, it is predicted that racial ethnic minorities will make up one third of the workforce. African-American participation in the workforce will increase by 29%, whereas Hispanic participation will increase by 72% (Bingham and Ward, 1994). Bingham and Ward (1994) stated the following:

> There are at least five areas that probably affect the career development of racial ethnic minority women: (a) information about the world of work, (b) familial involvement and approval, (c) community influence, role models, and language; (d) impact of socialization, and (e) impact of sexism and racism. (p. 168)

Ethnic minorities often have less information about the world of work because they have limited exposure to role models who work in a variety of occupations (Martin, 1991)

Summary

A review of the literature covering the last quarter of a century showed most research indicates that the stereotyping of career roles still occurs among children and youth and this form of stereotyping has a significant influence on career choice and vocational aspirations (Wearne, 1991). Forisha (1978) maintained that not everyone

will agree on the topic of sex roles. Why then do researchers study sex roles? Forish (1978) reported that by doing so "...we can learn more about ourselves.... With our knowledge we can exercise some control over our lives; hence we can direct our future" (p. 5).

There are a number of assumptions that can affect occupational choice. Those considered in this review were based on biological sex differences, social class or socioeconomic status, employment of the mother, education of parent, family structure, classification of student, and nationality of the student.

Statement of the Problem

The purpose of the researcher was to investigate occupational sex-role stereotyping in secondary school students.

Rationale and Importance of the Research

Counselors work with people who are in the process of making career choices. If counselors are not aware of sex-role occupational stereotyping it is essential that it become a part of their education. Much research has been conducted on variables which relate to or affect occupational stereotyping. There are possibilities that the women's movement, more teachers knowledgeable about gender-bias, and more women in the labor force and attending and graduating from college will encourage greater openness for both sexes. It is hoped this could be seen in their

attitudes towards women, in viewing all careers as equally accessible, and in choosing for themselves nontraditional careers.

The results of the present study could be used by secondary school teachers, counselors, counselor educators, and people who develop curriculum for counselor educators to develop career awareness units. Results of the study could help teachers and counselors become aware of the importance of sex-role occupational stereotyping. They might use the Occupational Sex-Role Stereotyping instrument to determine the amount of stereotyping that exists in secondary students. The results could also be used to build or improve a curriculum including non-traditional career awareness and choices.

The study contained more independent variables and in different combinations than was found in the related research; therefore, the outcome contributed to knowledge of these variables. The results of the present study provided information pertaining to the following questions:

1. Is there an association between gender and occupational sex-role stereotyping in secondary school students?
2. Is there an association between the socioeconomic status of parents and the occupational sex-role stereotyping of secondary school students?

3. Is there an association between the mother's employment outside the home and the occupational sex-role stereotyping of secondary school students?

4. Is there an association between the level of parents' education and occupational sex-role stereotyping of secondary school students?

5. Is there an association between the family structure in which the student lives and occupational sex-role stereotyping of secondary school students?

6. Is there an association between the classification of the student and occupational sex-role stereotyping of secondary school students.

7. Is there an association between the size of school enrollment and the occupational sex-role stereotyping of secondary school students?

8. Is there an association between nationality and the occupational sex-role stereotyping of secondary school students?

Composite Null Hypotheses

All Hypotheses were tested at the .05 level of significance.

1. The differences among the mean Occupational Sex-Role Stereotyping scores of secondary school students according to gender, socioeconomic status of parents, and mother's employment outside the home will not be statistically significant.

2. The differences among the mean Occupational Sex-Role Stereotyping scores of secondary school students according to gender, socioeconomic status of parents, and level of parents' education will not be statistically significant.

3. The differences among the mean Occupational Sex-Role Stereotyping scores of secondary school students according to gender, mother's employment outside the home, and level of parents' education will not be statistically significant.

4. The differences among the mean Occupational Sex-Role Stereotyping scores of secondary school students according to socioeconomic status of parents, mother's employment outside the home, and level of parent's education will not be statistically significant.

5. The differences among the mean Occupational Sex-Role Stereotyping scores of secondary school students according to family structure, classification of the student, and size of school enrollment will not be statistically significant.

6. The differences among the mean Occupational Sex-Role Stereotyping scores of secondary school students according to gender, socioeconomic status of the parents, and nationality of the student will not be statistically significant.

Definitions of Variables

Independent Variables

Information pertaining to the independent variables came from the Demographic Sheet. The following eight independent variables were investigated:

gender - two levels;

level one - females, and

level two - males;

socioeconomic status of the parents - two levels determined post hoc;

level one - pay full lunch rates, and

level two - do not pay full lunch rates;

mother's employment outside the home - two levels;

level one - yes, and

level two - no;

parents' formal education stated as the higher education level of either parent - four levels determined post hoc;

level one - less than high school graduate,

level two - high school graduate,

level three - high school graduate and some college or training, and

level four - college degree or beyond;

family structure - four levels determined post hoc;

level one - intact (biological mother and father),

level two - reconstituted (one biological and one

step parent),

level three - mother only, and

level four - other;

classification of student - four levels;

level one - 9th grade,

level two - 10th grade,

level three - 11th grade, and

level four - 12th grade;

size of school district - three levels;

level one - enrollments of 74 or less (1A, 1993-94 school year),

level two - enrollment from 116-181 (3A), and

level three - enrollments from 782-1848 (6A);

nationality of the student - two levels determined post hoc;

level one - white, and

level two - nonwhite.

Dependent Variable

The dependent variable was scores from the Occupational Sex-Role Stereotyping.

Limitations

The results of the study might have been affected by the following:

(1) sample was not random;

(2) subjects for the study were from the same general geographical location;

(3) all data were self-reported; and

(4) only grades 9, 10, 11, and 12 were included in the study.

Methodology

Setting

The study was conducted at three secondary schools in the midwest. The schools were selected to depict 3 enrollment sizes. Students from a 1A school (enrollment of 74 and less, 1993-94 school year), a 3 A school (enrollment from 116-181), and a 6 A school (enrollment from 782 - 1848) were employed as subjects. The major source of income for these three communities are agriculture related industries

Subjects

The researcher was given permission to survey all students who selected to participate from grades 9 through 12, in the 1A and 3A schools. The counselor at the 6A school selected a section at each of the 4 classification levels from the following subjects: grades 9 Earth Science, 10 English, 11 American History and 12 Government. Sections were created randomly by computer and the enrollment was a cross section of the students. All students who were present when data were collected, who selected to participate. Those who had copies of questionnaires complete enough to use were included in the sample. The convenience sample consisted of 65 students from the 1A school, 161

students from the 3A school, and 98 students from the 6A school. There were 324 students in the sample, including 173 females and 151 males.

Instrumentation

Two instruments were employed in the present study. The instruments were the Demographic Sheet and the Occupational Sex-Role Stereotyping.

Demographic Sheet.

The Demographic Sheet was developed by the present researcher. It had questions that addressed the following areas: gender, socioeconomic status of the parents, mother's employment outside the home, level of parents' education, family structure, classification of the student and nationality of the student. Copies of the Demographic Sheet were color coded according to the size of school; yellow being for the 1A school, blue for the 3A school, and white colored questionnaires from the 6A school (Appendix A).

The Occupational Sex-Role Stereotyping.

The Occupational Sex-Role Stereotyping consists of 35 items. Items for the inventory were adapted by Eichman from three studies; Bailey and Nihlen, Scheresky, and Kennedy, (Eichman, 1987). The instrument was then employed by Sheila Billings (Jansonius) in 1992 in northwest Kansas. The instrument consisted of a list of 35 occupations. The respondent had three options, "female only," "male only," or

"both". The subjects were asked to indicate if they thought each of the 35 occupation was female, male, or for both sex-roles (Appendix B). The instrument was scored by giving 1 point for each "both" not circled. The higher the score the greater the occupational sex-role stereotyping. The possible score was 0 to 35.

Design

A status survey factorial design was employed. The independent variables investigated were gender, socioeconomic status of the parents, mother's employment outside the home, level of parents' education, family structure, classification of the student, size of the school district and nationality of the student. The dependent variable was scores from the Occupational Sex-Role Stereotyping. Eight composite null hypotheses were tested employing three-way analysis of variance (general linear model). The following design was used with each composite null hypothesis:

composite null hypothesis number 1, a 2x2x2 factorial design;

composite null hypothesis number 2, a 2x2x4 factorial design;

composite null hypothesis number 3, a 2x2x4 factorial design;

composite null hypothesis number 4, a 2x2x4 factorial design;

composite null hypothesis number 5, a 4x4x3 factorial design; and

composite null hypothesis number 6, a 2x2x2 factorial design.

McMillan and Schumacher (1989) cited 10 threats to internal validity. These 10 threats were dealt with in the following ways:

(1) history - did not pertain because the present study was status survey;

(2) selection - all students who were present, who consented to participate and presented completed instruments were included;

(3) statistical regression - did not pertain because the present study was status survey;

(4) testing - instruments were administered according to standard procedures;

(5) instrumentation - did not pertain because the present study was status survey;

(6) mortality - did not pertain because the present study was status survey;

(7) maturation - did not pertain because the present study was status survey;

(8) diffusion of treatment - did not pertain because the present study was status survey;

(9) experimental bias - no treatment was administered and data were collected by standard procedures; and

(10) statistical conclusion - two mathematical assumptions were violated (random sampling and equal numbers of subjects in cells). The general linear model was employed to correct for lack of equal numbers in cells, and the researcher did not project beyond the procedures employed.

McMillan and Schumacher (1989) cited 2 threats to external validity. These 2 threats were dealt with in the following ways:

(1) population external validity - the sample was not random; therefore, generalizations should be made only to similar groups; and

(2) ecological external validity-no treatment was administered and data were collected by standard procedures.

Data Collecting Procedures

Data were collected from grades 9, 10, 11, and 12 in three schools. The schools were selected to depict 3 enrollment sizes. Subjects from a 1A school (enrollment of 74 and less, 1993-94 school year), a 3A school (enrollment from 116-181), and a 6A school (enrollment from 782 - 1848) were employed as subjects. The researcher was given permission to survey all students who selected to participate from grades 9 through 12 in the 1A and 3A schools. The counselor at the 6A school selected a section at each of the 4 classification levels from the following

subjects: grades 9 Earth Science, 10 English, 11 American history, and 12 Government.

The researcher determined the potential number of subjects. A package of material was made for each student. The package included copies of the Demographic Sheet and the Occupational Sex-Role Stereotyping instrument.

The researcher administered it in the 1A and 3A schools because all students were enrolled in these classes. The researcher went into each English class and read the instruction sheet (Appendix C). At the completion of the reading, the researcher's assistant placed a copy of the instrument upside down on the students' desks. The students were instructed that they could ask questions. The researcher administered the instrument to the students at each grade level. Those who selected not to participate remained in their seats and turned in blank instruments.

The researcher mailed needed copies of the questionnaires to the counselor at the 6A school. The counselor administered copies of the questionnaires to a section of grade 9 Earth Science, 10 English, 11 American History and 12 Government. Following the administration the counselor collected the questionnaires, placed them in an envelope and kept them for the researcher to pick up.

After administration of the instruments were completed, the researcher checked copies of the questionnaires for completeness. Information was taken from those copies of

the questionnaires that were complete and employed in compiling a data sheet. The data were analyzed by main frame computer at Fort Hays State University.

Research Procedures

The researcher implemented the following steps:

(1) research topic was selected;

(2) thesis adviser was contacted and permission given to conduct exploratory study;

(3) arrangements were made for obtaining data;

(4) arrangements were made with the schools and grade levels to participate;

(5) computer searches were made using ERIC, Education Index, Psychology Abstracts, and Sociofile, Thesis Abstracts and Dissertation Abstracts

(6) research proposal was compiled;

(7) research proposal defended before thesis committee;

(8) data were collected;

(9) data were analyzed;

(10) total thesis written;

(11) thesis defended before thesis committee; and

(12) final edition of thesis.

Data Analysis

The following were compiled:

(1) appropriate descriptive statistic,

(2) three-way analysis of variance (general linear model),

(3) Bonferrion (Dunn) t test for means, and

(4) Duncans multiple range test for means.

Results

The purpose of the researcher was to investigate occupational sex-role stereotyping in secondary school students. The independent variables were: gender, socioeconomic status of the parents, mother's employment outside the home, parent's formal education, family structure, classification of the student, size of school district, and nationality. The dependent variable was scores from the Occupational Sex-Role Stereotyping instrument. The sample consisted of 324 secondary students, 173 females and 151 males. Six composite null hypotheses were tested at the .05 level of significance. Each composite null hypothesis was tested employing three-way analysis of variance (general linear model). The following design was used with each composite null hypothesis:

composite null hypothesis number 1, a 2x2x2 factorial design;

composite null hypothesis number 2, a 2x2x4 factorial design;

composite null hypothesis number 3, a 2x2x4 factorial design;

composite null hypothesis number 4, a 2x2x4 factorial design;

composite null hypothesis number 5, a 4x4x3 factorial design; and

composite null hypothesis number 6, a 2x2x2 factorial design.

The results section was organized according to composite null hypotheses for ease of reference. Information pertaining to each null hypothesis was presented in a common format for ease of comparison.

It was hypothesized in composite null hypothesis number one that the differences among the mean Occupational Sex-Role Stereotyping scores of secondary school students according to gender, socioeconomic status of parents, and mother's employment outside the home will not be statistically significant. Information pertaining to composite null hypothesis number one was presented in Table 1. The following were cited in Table 1: variables, group sizes, means, standard deviations, F values, and p levels.

Table 1: A Comparison of Mean Occupational Sex-Role Stereotyping Scores of Secondary School Students According to Gender, Socioeconomic Status of Parents, and Mother's Employment Outside the Home Employing a Three-Way Analysis of Variance

Variable	n	M*	s	F value	p level
Gender (A)					
female	173	5.7[a]	6.77	27.19	.0001
male	151	10.5[b]	7.60		
Socioeconomic Status of Parents (B)					
1**	267	7.8	7.44	0.45	.5030
2	57	8.3	8.09		
Mother's Employment Outside the Home (C)					
yes	247	7.7	7.54	0.28	.5940
no	77	8.5	7.58		
Interactions					
A x B				0.37	.5420
A x C				0.01	.9322
B x C				1.25	.2653
A x B x C				1.47	.2270

*The larger the value, the greater the stereotyping (possible scores 0-35).
**1 = those who pay full lunch rates, 2 = those who do not pay full lunch rates.
[ab]Difference statistically significant at the .05 level according to Bonferroni (Dunn) t test for means.

One of the 7 p values was statistally significant at the .05 level: therefore, the null hypothesis for this comparison was rejected. The statistically significant comparison was for the main effect gender. The results cited in Table 1 indicated females reported statistically less occupational sex-role stereotyping than males.

It was hypothesized in composite null hypothesis number two that the differences among the mean Occupational Sex-Role Stereotyping scores of secondary school students according to gender, socioeconomic status of parents, and level of parents' education will not be statistically significant. Information pertaining to composite null hypothesis number two was presented in Table 2. The following were cited in Table 2: variables, group sizes, means, standard deviations, F values, and p levels.

Table 2: A Comparison of Mean Occupational Sex-Role Stereotyping Scores of Secondary School Students According to Gender, Socioeconomic Status of Parents, and Level of Parents' Education Employing a Three-Way Analysis of Variance

Variable	n	M*	s	F value	p level
Gender (A)					
female	173	5.7[a]	6.77	16.35	.0001
male	151	10.5[b]	7.60		
Socioeconomic Status of Parents (B)					
1**	267	7.8	7.44	0.25	.6177
2	57	8.3	8.09		
Level of Parents' Education (D)					
1***	21	10.0	7.59		
2	63	8.1	7.70	1.44	.2297
3	92	6.9	7.39		
4	148	8.1	7.56		
Interactions					
A x B				3.44	.0645
A x D				0.55	.6501
B x D				1.74	.1581
A x B x D				0.55	.6469

*The larger the value, the greater the stereotyping (possible scores 0-35).
**1 = those who pay full lunch rates, 2 = those who do not pay full lunch rates.
[ab]Difference statistically significant at the .05 level according to Bonferroni (Dunn) t test for means.

One of the 7 p values was statistically significant at the .05 level: therefore, the null hypothesis for this comparison was rejected. The statistically significant

comparison was for the main effect gender (recurring, Table 1). The results cited in Table 2 indicated no additional associations between independent variables and the dependent variable.

It was hypothesized in composite null hypothesis number three that the differences among the mean Occupational Sex-Role Stereotyping scores of secondary school students according to gender, mothers's employment outside the home, and level of parent's education would not be statistically significant. Information pertaining to composite null hypothesis number three was presented in Table 3. The following were cited in Table 3: variables, group sizes, means, standard deviations, F values, and p levels.

Table 3: A Comparison of Mean Occupational Sex-Role Stereotyping Scores of Secondary School Students According to Gender, Mother's Employment Outside the Home, and Level of Parents' Education Employing a Three-Way Analysis of Variance

Variable	n	M*	s	F value	p level
Gender (A)					
female	173	5.7[a]	6.77	15.95	.0001
male	151	10.5[b]	7.60		
Mother's Employment Outside the Home (C)					
yes	247	7.7	7.54	0.13	.7189
no	77	8.5	7.58		
Level of Parents' Education (D)					
1***	21	10.0	7.59		
2	63	8.1	7.70	0.49	.6881
3	92	6.9	7.39		
4	148	8.1	7.56		
Interactions					
A x C				0.07	.7959
A x D				1.22	.3039
C x D				2.23	.0844
A x C x D				1.77	.1524

*The larger the value, the greater the stereotyping (possible scores 0-35).
***1 = less than high school graduate, 2 = high school graduate, 3 = high school graduate and some college or training, 4 = college degree and beyond.
[ab]Difference statistically significant at the .05 level according to Bonferroni (Dunn) t test for means.

One of the 7 p values was statistically significant at the .05 level: therefore, the null hypothesis for this comparison was rejected. The statistically significant comparison was for the main effect gender (recurring, Table

1). The results cited in Table 3 indicated no additional associations between independent variables and the dependent variable.

It was hypothesized in composite null hypothesis number four that the differences among the mean Occupational Sex-Role Stereotyping scores of secondary school students according to socioeconomic status of parents, mother's employment outside the home, and level of parents' education would not be statistically significant. Information pertaining to composite null hypothesis number four was presented in Table 4. The following were cited in Table 4: variables, group sizes, means, standard deviations, *F* values, and *p* levels.

Table 4: A Comparison of Mean Occupational Sex-Role Stereotyping Scores of Secondary School Students According to Socioeconomic Status of Parents, Mother's Employment Outside the Home, and Level of Parents' Education Employing a Three-Way Analysis of Variance

Variable	n	M*	s	F value	p level
Socioeconomic Status of Parents (B)					
1**	267	7.8	7.44	0.34	.5603
2	57	8.3	8.09		
Mother's Employment Outside the Home (C)					
yes	247	8.5	7.54	0.95	.3313
no	77	7.7	7.58		
Level of Parents' Education (D)					
1***	21	10.0	7.59		
2	63	8.1	7.70	1.37	.2528
3	92	6.9	7.39		
4	148	8.1	7.56		
Interactions					
B x C				0.09	.7662
B x D				1.76	.1550
C x D				2.34	.0735
B x C x D				1.19	.3134

*The larger the value, the greater the stereotyping (possible scores 0-35).
**1 = pay full lunch rates, 2 = do not pay full lunch rates.
***1 = less than high school graduate, 2 = high school graduate, 3 = high school graduate and some college or training, 4 = college degree or beyond.

None of the 7 p values were statistically significant at the .05 level: therefore, the null hypotheses for these comparisons were retained. Information cited in Table 4

indicated no additional associations between independent variables and the dependent variable.

It was hypothesized in composite null hypothesis number five that the differences among the mean Occupational Sex-Role Stereotyping scores of secondary school students according to family structure, classification of the student, and size of school enrollment would not be statistically significant. Information pertaining to composite null hypothesis number five was presented in Table 5. The following were cited in Table 5: variables, group sizes, means, standard deviations, F values, and p levels.

Table 5: A Comparison of Mean Occupational Sex-role Stereotyping Scores of Secondary School Students According to Family Structure, Classification of the Student, and Size of School Enrollment Employing a Three-Way Analysis of Variance

Variable	n	M*	s	F value	p level
Family Structure (E)					
Intact	221	8.0	7.60		
Reconstructed	52	7.1	7.29	0.42	.7422
Mother only	27	9.0	9.21		
Other	24	8.2	5.58		
Classification of the Student (F)					
9th	73	8.4	8.48		
10th	84	6.8	6.67	0.28	.8375
11th	78	9.2	7.56		
12th	84	7.4	7.35		
Size of School Enrollment (G)					
1A**	65	5.7	6.72		
3A	161	8.0	7.73	2.28	.1037
6A	98	9.2	7.50		
Interactions					
E x F				0.56	.8316
E x G				1.68	.1253
F x G				0.69	.6546
E x F x G				0.91	.5521

*The larger the value, the greater the stereotyping (possibe scores 0-35).
**1A = enrollments of 74 or less, 3A = enrollments from 116-181, 6A = enrollments from 782-1848.

None of the 7 p values were statistically significant at the .05 level: therefore, the null hypotheses for these comparisons were retained. Information cited in Table 5

indicated no additional associations between independent variables and the dependent variable.

It was hypothesized in composite null hypothesis number six that the differences among the mean Occupational Sex-Role Stereotyping scores of secondary school students according to gender, socioeconomic status of the parents, and nationality of the student would not be statisically significant. Information pertaining to composite null hypothesis number six was presented in Table 6. The following were cited in Table 6: variables, sample size, means, standard deviations, F values, and p levels.

Table 6: A Comparison of Mean Occupational Sex-Role Stereotyping Scores of Secondary School Students According to Gender, Socioeconomic Status of the Parents, and Nationality Employing a Three-Way Analysis of Variance

Variable	n	M*	s	F value	p level
Gender (A)					
female	173	5.7[a]	6.77	8.11	.0047
male	151	10.5[b]	7.60		
Socioeconomic Status of Parents (B)					
1**	267	7.8	7.44	0.22	.6372
2	57	8.3	8.09		
Nationality of the Student (H)					
White	278	7.4[a]	7.15	5.32	.0217
Nonwhite	46	11.1[b]	9.03		
Interactions					
A x B				2.88	.0909
A x H				1.75	.1872
B x H				0.06	.8081
A x B x H				1.84	.1757

*The larger the value, the greater the stereotyping (possible scores 0-35).
**1 = pay full lunch rates, 2 = do not pay full lunch rates.
[a][b]Difference statistically significant at the .05 level according to Bonferroni (Dunn) t test for means.

Two of the 7 p values were statistically significant at the .05 level: therefore, the null hypotheses for these comparisons were rejected. The statistically significant comparisons were for the following main effects: gender (recurring, Table 1) and nationality. The results cited in

Table 6 indicated white students reported statistically less occupational sex-role stereotyping than nonwhite students.

Discussion

Summary

The purpose of the researcher was to investigate occupational sex-role stereotyping in secondary school students. The independent variables were: gender, socioeconomic status of the parents, mother's employment outside the home, parent's formal education, family structure, classification of the student, size of school district, and nationality. The dependent variable was scores from the Occupational Sex-Role Stereotyping instrument. The sample consisted of 324 secondary students, 173 females and 151 males. Six composite null hypotheses were tested at the .05 level of significance. Each composite null hypothesis was tested employing three-way analysis of variance (general linear model).

A total of 25 comparisons plus 17 recurring were made. Of the 25 comparisons, 8 were for main effects and 17 for interactions. Of the 8 main effects, 2 were statistically significant at the .05 level. The following main effects were statistically significant: gender and nationality. The results indicated the following for main effects:

1. females reported statistically less occupational sex-role stereotyping than males, and

2. students of white nationality reported less sex-role stereotyping than nonwhite students.

None of the 17 interactions were statistically significant at the .05 level.

Related Literature and Present Study

The results of the present study supported the research results reported by Williams and Best (1982) that in the past two decades women have broadened their view of sex-appropriate occupations. The present study included a higher percent of secondary students who had mother's employed outside the home. The present research partially supported the study by Tomeh (1979), which indicated that females whose mothers were employed outside of the home saw more male dominant vocations as being available to both sexes than did females whose mothers were not so employed. The results of the present study did not support the research of Gardner and LaBrecque (1986), who hypothesized that both sons and daughters of employed mothers would have broader, less differentiated conceptions of sex roles.

The results of the present study did not support the findings reported by Awender and Wearne (1990) that as the age of children increased the sex-occupational stereotypes decreased. Awender and Wearne (1990) studied students ages 9-14 and the present researcher used a sample of secondary students who would be approximately 14-18 years of age.

The results of the present study indicated that white students had less sex-role stereotyping than nonwhite. The researcher found no studies of nationality in her review of literature. Partial agreement was cited by Morrison and VonGlinow (1990) that women and minorities are prevented from moving up in the management hierarchy know as the "glass ceiling" effect.

Generalizations

The results of the present study appeared to support the following generalizations:

(1) females reported less occupational sex-role stereotyping than males,

(2) white students reported less occupational sex-role stereotyping than nonwhite students.

(3) no association between socioeconomics of parents and occupational sex-role stereotyping,

(4) no association between mother working outside the home and occupational sex-role stereotyping,

(5) no association between parent's level of education and occupational sex-role stereotyping,

(6) no association between family structure and occupational sex-role stereotyping,

(7) no association between classification of the student and occupational sex-role stereotyping, and

(8) no association between the size of school and occupational sex-role stereotyping.

Implications

The initial stage of awareness is that there needs to be an educational change. Since administrators, teachers, and counselors are primary agents for implementing change, they need to be made aware of the level of stereotyping that exists among students, and the effect stereotyping has on occupational choices of students, and how their own attitudes can influence young people. Such information should be provided in the form of inservice workshops or conferences. After educators have become more aware of the problems of stereotyping, it would be appropriate to make parents aware of this problem and how to deal with it. Presentations could be made at parent-teacher association meetings or at school conferences.

Recommendations

The results of the present study appeared to support the following recommendations:

(1) the study should be replicated with employing a larger random sample,

(2) the study should be replicated in a variety of geographical areas,

(3) the variable gender should be investigated in greater detail,

(4) the variable nationality should be investigated in greater detail, and

(5) the variable socioeconomic status should be investigated with more differentiation.

(6) occupational choices may not distinguish gender orientation. Use different instrument.

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Appendix A

Demographic Sheet

Demographic Sheet

Plese place a check next to the item which best describes you in each of the questions.

1. Gender: _____ Male _____ Female

2. Do you receive special lunch rates?

_____ free lunches _____ reduced lunches
_____ pay full lunch rates

3. Is your mother presently working outside the home, either full-time or part-time?

_____ yes _____ no

4. Parents education: Check highest level completed.

Mother		Father
_____	Less than high school.....	_____
_____	High school graduate.....	_____
_____	Some college or training beyond high school.....	_____
_____	College degree or beyond..	_____

5. Family structure:

_____ Intact (living with biological mother and father)
_____ Mother only _____ Father only
_____ Mother & step-father _____ Father & step-mother
_____ Grandparents _____ Foster parents

6. Classification

_____ Freshman _____ Sophomore
_____ Junior _____ Senior

7. Nationality

_____ White _____ Hispanic _____ Asian

_____ Native American _____ African American

Appendix B

Occupational Sex-Role Stereotyping

OCCUPATIONAL SEX-ROLE STEREOTYPING

Occupations for men and women. Circle "FEMALE ONLY" if you think the occupation is for women. Circle "MALE ONLY" if you think the occupation is for men. Circle the word "BOTH" if you think the occupation is for both females and males.

1.	Zookeeper	FEMALE ONLY	MALE ONLY	BOTH
2.	Fashion designer	FEMALE ONLY	MALE ONLY	BOTH
3.	Astronaut	FEMALE ONLY	MALE ONLY	BOTH
4.	Chemical engineer	FEMALE ONLY	MALE ONLY	BOTH
5.	Singer	FEMALE ONLY	MALE ONLY	BOTH
6.	Professional athlete	FEMALE ONLY	MALE ONLY	BOTH
7.	News broadcaster	FEMALE ONLY	MALE ONLY	BOTH
8.	Baker	FEMALE ONLY	MALE ONLY	BOTH
9.	Business secretary	FEMALE ONLY	MALE ONLY	BOTH
10.	Librarian	FEMALE ONLY	MALE ONLY	BOTH
11.	Computer programmer	FEMALE ONLY	MALE ONLY	BOTH
12.	School teacher	FEMALE ONLY	MALE ONLY	BOTH
13.	Truck driver	FEMALE ONLY	MALE ONLY	BOTH
14.	Tennis Player	FEMALE ONLY	MALE ONLY	BOTH
15.	Firefighter	FEMALE ONLY	MALE ONLY	BOTH
16.	Model	FEMALE ONLY	MALE ONLY	BOTH
17.	Police officer	FEMALE ONLY	MALE ONLY	BOTH
18.	Veterinarian	FEMALE ONLY	MALE ONLY	BOTH
19.	Doctor	FEMALE ONLY	MALE ONLY	BOTH
20.	Mechanic	FEMALE ONLY	MALE ONLY	BOTH
21.	Farmer	FEMALE ONLY	MALE ONLY	BOTH
22.	Scientist	FEMALE ONLY	MALE ONLY	BOTH
23.	Carpenter	FEMALE ONLY	MALE ONLY	BOTH
24.	Store clerk	FEMALE ONLY	MALE ONLY	BOTH
25.	Mail carrier	FEMALE ONLY	MALE ONLY	BOTH
26.	Airplane pilot	FEMALE ONLY	MALE ONLY	BOTH
27.	Lawyer	FEMALE ONLY	MALE ONLY	BOTH
28.	Florist	FEMALE ONLY	MALE ONLY	BOTH
29.	Nurse	FEMALE ONLY	MALE ONLY	BOTH
30.	Heavy equipment operator	FEMALE ONLY	MALE ONLY	BOTH
31.	Medical technician	FEMALE ONLY	MALE ONLY	BOTH
32.	Bus driver	FEMALE ONLY	MALE ONLY	BOTH
33.	Custodian	FEMALE ONLY	MALE ONLY	BOTH
34.	School superintendent	FEMALE ONLY	MALE ONLY	BOTH
35.	Salesperson	FEMALE ONLY	MALE ONLY	BOTH

Appendix C

Instruction Sheet

Instruction Sheet

My name is (administer's name). I am assisting a graduate student at Fort Hays State University to complete partial requirements for the Degree of Masters of Science. As I read the instructions, the student assistant will be placing a work package on your desk and we ask you not to turn it over until instructed to do so.

The purpose of the researcher is to investigate occupational sex-role stereotyping in secondary students. The Demographic Sheet and attached questionnaire is part of the research. Your cooperation in this study will help the researcher. Your responses are completely confidential and cannot be identified with you personally. If you have questions, you may ask for assistance. You have the right not to participate. If you choose not to participate, please remain seated quietly and your package will be picked up with the rest of the students. If you select to participate, you must answer all questions on both instruments in order for it to be used in the research.

You may now turn your package over. Please place a check next to the item which best describes you in each question of the Demographic Sheet. On the Occupational Sex-Role Stereotyping instrument, circle "Female Only" if you think the occupation is for women, circle "Male only" if you think it is for males and "Both" if you think the occupation is for both female and male. When all students have finished, the instruments will be collected and thank you for your participation.

Appendix D

Letters Requesting Permission

Box 744
Cimarron, KS 67835
(316) 855-3894
December 14, 1993

Mr. James R. Hardy
Principal
Ingalls High School
Box 99
Ingalls, KS 67853

Dear Mr. Hardy:

My name is Maribeth Long, a graduate student at Fort Hays State University. I am writing a thesis as a partial requirement for a master's degree in counseling. In order to complete the research, I am requesting your assistance to obtain the pertinent data.

The topic of the thesis is the occupational sex-role stereotyping of students at the secondary school level. A questionnaire will be administered to students from three schools in southwestern Kansas, varying in size of enrollment. I would ask that the survey be administered to only one class from each grade level at GCHS.

To ensure anonymity, I will ask that students please not put their name on the instrument. The highest level of confidentiality will be observed. A copy of the final study will be placed in the Fort Hays State University Library.

It will include a demographic sheet and questionnaire that the students will be asked to fill out. The entire process will require approximately 15 minutes of class time.

At this time I am asking for permission to have this survey administered at Gardem City High School. If you have any questions, please contact me.

Thank you for your time and consideration.

Sincerely,

Maribeth Long

Box 744
Cimarron, KS 67835
(316) 855-3894
December 14, 1993

Mr. Richard Patton, Principal
Garden City High School
1412 N. Main
Garden City, Kansas 67846

Dear Mr. Patton:

My name is Maribeth Long, a graduate student at Fort Hays State University. I am writing a thesis as a partial requirement for a master's degree in counseling. In order to complete the research, I am requesting your assistance to obtain the pertinent data.

The topic of the thesis is the occupational sex-role stereotyping of students at the secondary school level. A questionnaire will be administered to students from three schools in southwestern Kansas, varying in size of enrollment. I would ask that the survey be administered to only one class from each grade level at GCHS.

To ensure anonymity, I will ask that students please not put their name on the instrument. The highest level of confidentiality will be observed. A copy of the final study will be placed in the Fort Hays State University Library.

It will include a demographic sheet and questionnaire that the students will be asked to fill out. The entire process will require approximately 15 minutes of class time.

At this time I am asking for permission to have this survey administered at Gardem City High School. If you have any questions, please contact me.

Thank you for your time and consideration.

Sincerely,

Maribeth Long

Box 744
Cimarron, KS 67835
(316) 855-3894
December 14, 1993

Mr. Rudy Louis, Principal
Cimarron High School
Cimarron, KS 67835

Dear Mr. Louis:

My name is Maribeth Long, a graduate student at Fort Hays State University. I am writing a thesis as a partial requirement for a master's degree in counseling. In order to complete the research, I am requesting your assistance to obtain the pertinent data.

The topic of the thesis is the occupational sex-role stereotyping of students at the secondary school level. A questionnaire will be administered to students from three schools in southwestern Kansas, varying in size of enrollment. I would ask that the survey be administered to only one class from each grade level at GCHS.

To ensure anonymity, I will ask that students please not put their name on the instrument. The highest level of confidentiality will be observed. A copy of the final study will be placed in the Fort Hays State University Library.

It will include a demographic sheet and questionnaire that the students will be asked to fill out. The entire process will require approximately 15 minutes of class time.

At this time I am asking for permission to have this survey administered at Gardem City High School. If you have any questions, please contact me.

Thank you for your time and consideration.

Sincerely,

Maribeth Long

November 15, 1993

Shiela Jansonius
705 W. Mill
Oberlin, Kansas 67749

Dear Mrs. Jansonius:

I am a graduate student at Fort Hays State University, and I am writing a thesis as a partial requirement for a master's degree in counseling. Currently, I am working on my thesis: Occupational Sex-Role Stereotyping of Secondary Students from Three Sizes of School Enrollment.

I obtained a copy of your Master's Degree Thesis, "Occupational Sex-Role Stereotyping in Elementary Students". I would like permission to use your survey instrument Occupational Sex-Stereotyping which listed 30 occupations. I would also ask your permission to alter the survey items as necessary to meet the needs of my research.

Thank you for your time and consideration.

Sincerely,

Maribeth Long

Box 744
Cimarron, KS 67835

Appendix E

Letters Granting Permission

Garden City Public Schools
U.S.D. #457

Personnel and Staff Development

January 24, 1994

Maribeth Long
Box 744
Cimarron, KS 67835

Dear Ms. Long:

Your request to survey Garden City High School students regarding occupational sex-role stereotyping of students at the secondary level is approved.

Please coordinate the distribution of the survey through Mr. Rich Patton, Garden City High School Principal, and Elaine Schalesky, Garden City High School Guidance Counselor.

Sincerely,

James E. Lentz
Deputy Superintendent

cc: Mr. Patton, GCHS
Elaine Schalesky, GCHS

JEL:rf

1205 Fleming Street • Garden City, KS 67846 • 316-276-5121 • Fax 316-276-5220

An EEO/AA Employer

November 30, 1993

Maribeth Long
Box 744
Cimarron, KS 67835

Maribeth,

I am writing in reference to your letter dated November 15, 1993, concerning the Occupational Sex-Stereotyping instrument I used in my thesis. You have my permission to use, and alter as needed, the Occupational Sex-Stereotyping instrument for your thesis research.

Please feel free to contact me if I can be of further assistance.

Sincerely,

Sheila Jansonius

Sheila Jansonius